



MERCHANT, GOULD, SMITH, EDELL, WELTER & SCHMIDT

United States Patent Applicati n

COMBINED DECLARATION AND POWER OF ATTORNEY

As a below named inventor I hereby declare that: my residence, post office address and citizenship are as stated below next to my name; that

I verily believe I am the original, first and sole inventor (if only one name is listed below) or a joint inventor (if plural inventors are named below) of the subject matter which is claimed and for which a patent is sought on the invention entitled: ENDOCARDIAL MAPPING SYSTEM

The specification of which

- a. is attached hereto
- b. X was filed on February 16, 1995 as application serial no. 08/387,832 and was amended on _ (if applicable) (in the case of a PCT-filed application) described and claimed in international no. PCT/US93/09015 filed September 23,1995 and as amended on ____ (if any), which I have reviewed and for which I solicit a United States patent.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, § 1.56 (see page 3 attached hereto).

I hereby claim foreign priority benefits under Title 35, United States Code, § 119/365 of any foreign application(s) for patent of inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on the basis of which priority is claimed:

- a. X no such applications have been filed.
- b. such applications have been filed as follows:

FOI	REIGN APPLICATION(S), IF ANY,	CLAMING PRIORITY UN	DER 35 USC § 119
COUNTRY	APPLICATION NUMBER	DATE OF FILING (day, month, year)	DATE OF ISSUE (day, month, year)
ALL FOR	EIGN APPLICATION(S), IF ANY, I	EU ED REEODE THE PRIC	DEITY ADDITION(S)
	EIGN ATTEICATION(5), IF ANT, I	TILED DEFORE THE TRIC	DRITT ATTEICATION(S)
COUNTRY	APPLICATION NUMBER	DATE OF FILING (day, month, year)	DATE OF ISSUE (day, month, year)

I hereby claim the benefit under Title 35, United States Code, § 120/365 of any United States and PCT international application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, § 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, § 1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application.

U.S. APPLICATION NUMBER	DATE OF FILING (day, month, year)	STATUS (patented, pending, abandoned)	
07/949,690	23 September 1992	Issued	
07/950,448	23 September 1992	Issued	

I hereby appoint the following attorney(s) and/or patent agent(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected herewith:

	No. 34,470	Gabilan, Mary Susan	Reg. No.P-38,729	Pollinger, Steven J.	Reg. No. 35,326
	No. 32,960	Golla, Charles E.	Reg. No. 26,896	Reich, John C.	Reg. No. 37,703
Beard, John L. Reg.	No. 27,612	Gorman, Alan G.	Reg. No.P-38,472	Reiland, Earl D.	Reg. No. 25,767
Beck, Robert C. Reg.	No. 28,184	Gould, John D.	Reg. No. 18,223	Schmidt, Cecil C.	Reg. No. 20,566
Bejin, Thomas E. Reg.	No. 37,089	Gresens, John J.	Reg. No. 33,112	Schuman, Mark D.	Reg. No. 31,197
Berman, Charles Reg.	No. 29,249	Hammer, Michael S.	Reg. No.P-38,483	Schumann, Michael D.	Reg. No. 30,422
Bogucki, Raymond A. Reg.	No. 17,426	Hamre, Curtis D.	Reg. No. 29,165	Schald, Gregory A.	Reg. No. 33,280
Bruess, Steven C. Reg.	No. 34,130	Hassing, Thomas A.	Reg. No. 36,159	Smith, Jerome R.	Reg. No. 35,684
Byrne, Linda M. Reg.	No. 32,404	Hillson, Randall A.	Reg. No. 31,838	Sorensen, Andrew D.	Reg. No. 33,606
Carlson, Alan G. Reg.	No. 25,959	Hollingsworth, Mark	A.Reg No. P-38,491	Stinebruner, Scott A.	Reg. No.P-38,323
Carter, Charles G. Reg.	No. 35,093	Kadievitch, CarolineG	. Reg.No. P-38,198	Strawbridge, Douglas A.	Reg. No. 28,376
Caspers, Philip P. Reg.	No. 33,227	Kastelic, Joseph M.	Reg. No. 37,160	Strodthoff, Kristine M.	Reg. No. 34,259
Clifford, John A. Reg.	No. 30,247	Kowalchyk, Alan W.	Reg. No. 31,535	Sumner, John P.	Reg. No. 29,114
Conrad, Timothy R. Reg.	No. 30,164	Kowalchyk, Katherine M.	Reg. No. 36,848	Sumners, John S.	Reg. No. 24,216
Daignault, Ronald A. Reg.	No. 25,968	Krull, Mark A.	Reg. No. 34,205	Tellekson, David K.	Reg. No. 32,314
Daley, Dennis R. Reg.	No. 34,994	Lasky, Michael B.	Reg. No. 29,555	Underhill, Albert L.	Reg. No. 27,403
Daulton, Julie R. Reg. 1	No. 36,414	Lynch, David W.	Reg. No. 36,204	Vandenburgh, J. Derek	Reg. No. 32,179
DeFrank, Edmond A. Req.	No. 37,814	Mau, Michael L.	Reg. No. 30,087	Vietzke, Lance L.	Reg. No. 36,708
DiPietro, Mark J. Reg. 1	No. 28,707	McDonald, Daniel W.	Reg. No. 32,044	Welter, Paul A.	Reg. No. 20,890
Edell, Robert T. Reg. 1	No. 20,187	McDonald, Wendy M.	Reg. No. 32,427	Williams, Douglas J.	Reg. No. 27,054
Farber, Michael B. Reg. 1	No. 32,612	Nelson, Albin J.	Reg. No. 28,650	Wood, Gregory B.	Reg. No. 28,133
		Plunkett, Theodore	Reg. No. 37,209	Yip, Philip S.	Reg. No. 37,265

I hereby authorize them to act and rely on instructions from and communicate directly with the person/assignee/attorney/firm/organization/who/which first sends/sent this case to them and by whom/which I hereby declare that I have consented after full disclosure to be represented unless/until I instruct Merchant & Gould to the contrary.

Please direct all correspondence in this case to Merchant, Gould, Smith, Edell, Welter & Schmidt at the address indicated below:

Robert C. Beck, 3100 Norwest Center, 90 South Seventh Street, Minneapolis, Minnesota 55402

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

2	Full Name	Family Name	First Given Name	Second Given Name
	Of Inventor	Beatty	Graydon	Ernest
0	Residence & Citizenship	City St. Paul	State or Foreign Country Minnesota	Country of Citizenship U.S.A.
1	Post Office	Post Office Address	City	State & Zip Code/Country
	Address	1170 Cushing Circle, #319	St. Paul	Minnesota/55108/U.S.A.
2	Full Name Of Inventor	Family Name Kagan	First Given Name Jonathan	Second Given Name
0	Residence & Citizenship	City Minneapolis	State or Foreign Country Minnesota	Country of Citizenship U.S.A.
2	Post Office Address	Post Office Address 5112 Russell Avenue South	City Minneapolis	State & Zip Code/Country Minnesota/5544/U.S.A.
2	Full Name	Family Name	First Given Name	Second Given Name
	Of Inventor	Budd	Jeffrey	Robert
0	Residence	City	State or Foreign Country	Country of Citizenship
	& Citizenship	St. Paul	Minnesota	U.S.A.
3	Post Office	Post Office Address	City	State & Zip Code/Country
	Address	2261 Gordon Avenue	St. Paul	Minnesota/55108/U.S.A.

Signature of Inventor 201 Maydon E. Bestly	Signature of Inventor 202	Signature of Inventor 203
Date 4/23/95	Date 4/23/95	Date 4/23/95

For Additional Inventors:

__ Indicate here and attach sheet with same information, including date and signature.

§ 1.56 Duty to disclose information material to patentability.

- (a) A patent by its very nature is affected with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability. Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section. The duty to disclose information exists with respect to each pending claim until the claim is cancelled or withdrawn from consideration, or the application becomes abandoned. Information material to the patentability of a claim that is cancelled or withdrawn from consideration need not be submitted if the information is not material to the patentability of any claim remaining under consideration in the application. There is no duty to submit information which is not material to the patentability of any existing claim. The duty to disclose all information known to be material to patentability is deemed to be satisfied if all information known to be material to patentability of any claim issued in a patent was cited by the Office or submitted to the Office in the manner prescribed by §§ 1.97(b)-(d) and 1.98. However, no patent will be granted on an application in connection with which fraud on the Office was practiced or attempted or the duty of disclosure was violated through bad faith or intentional misconduct. The Office encourages applicants to carefully examine:
 - (1) prior art cited in search reports of a foreign patent office in a counterpart application, and
- (2) the closest information over which individuals associated with the filing or prosecution of a patent application believe any pending claim patentably defines, to make sure that any material information contained therein is disclosed to the Office.
- (b) Under this section, information is material to patentability when it is not cumulative to information already of record or being made of record in the application, and
- (1) It establishes, by itself or in combination with other information, a prima facie case of unpatentability of a claim; or
 - (2) It refutes, or is inconsistent with, a position the applicant takes in:
 - (i) Opposing an argument of unpatentability relied on by the Office, or
 - (ii) Asserting an argument of patentability.

A prima facie case of unpatentability is established when the information compels a conclusion that a claim is unpatentable under the preponderance of evidence, burden-of-proof standard, giving each term in the claim its broadest reasonable construction consistent with the specification, and before any consideration is given to evidence which may be submitted in an attempt to establish a contrary conclusion of patentability.

- (c) Individuals associated with the filing or prosecution of a patent application within the meaning of this section are:
- (1) Each inventor named in the application:
- (2) Each attorney or agent who prepares or prosecutes the application; and
- (3) Every other person who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application.
- (d) Individuals other than the attorney, agent or inventor may comply with this section by disclosing information to the attorney, agent, or inventor.



MERCHANT, GOULD, SMITH, EDELL, WELTER & SCHMIDT

United States Patent Application

COMBINED DECLARATION AND POWER OF ATTORNEY

As a below named inventor I hereby declare that: my residence, post office address and citizenship are as stated below next to my name; that

I verily believe I am the original, first and sole inventor (if only one name is listed below) or a joint inventor (if plural inventors are named below) of the subject matter which is claimed and for which a patent is sought on the invention entitled: <u>ELECTROPHYSIOLOGY MAPPING SYSTEM</u>

The specification of which

- a. X is attached hereto
- b. _was filed on _ as application serial no. _ and was amended on _ (if applicable) (in the case of a PCT-filed application) described and claimed in international no. _ filed _ and as amended on _ (if any), which I have reviewed and for which I solicit a United States patent.

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

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U.S. APPLICATION NUMBER	DATE OF FILING (day, month, year)	STATUS (patented, pending, abandoned)	
08/387;832)	February 16, 1995	Pending	
07/950,448	September 23, 1992	Issued	

U.S. APPLICATION NUMBER	DATE OF FILING (day, month, year)	STATUS (patented, pending, abandoned)
07/949,690	September 23, 1992	Issued

I hereby appoint the following attorney(s) and/or patent agent(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected herewith:

Adriano, Sarah B. Batzli, Brian H. Beard, John L. Beck, Robert C. Bejin, Thomas E. Berman, Charles Bogucki, Raymond A. Bruess, Steven C. Byrne, Linda M. Carlson, Alan G. Carter, Charles G. Caspers, Philip P. Clifford, John A. Conrad, Timothy R. Crawford, Robert Daignault, Ronald A. Daley, Dennis R. Daulton, Julie R. Dempster, Shawn B. DiPietro, Mark J. Edell, Robert T. Farber, Michael B. Fauver, Cole M.	Reg. No. 34,130 Reg. No. 32,404 Reg. No. 25,959 Reg. No. 35,093 Reg. No. 33,227 Reg. No. 30,247 Reg. No. 30,164 Reg. No. 32,122	Gabilan, Mary Susan Gates, George H. Golla, Charles E. Gorman, Alan G. Gould, John D. Gresens, John J. Hamre, Curtis B. Hassing, Thomas A. Hillson, Randall A. Hollingsworth, Mark Kastelic, Joseph M. Kowalchyk, Alan W. Kowalchyk, Katherine N. Krull, Mark A. Lacy, Paul A. Lasky, Michael B. Lynch, David W. Mau, Michael L. McDonald, Daniel W. McDonald, Wendy M. Mueller, Douglas P. Nelson, Albin J. Plunkett, Theodore	Reg. No. 33,500 Reg. No. 26,896 Reg. No. 38,472 Reg. No. 18,223 Reg. No. 33,112 Reg. No. 29,165 Reg. No. 36,159 Reg. No. 31,838 A. Reg. No. 38,491 Reg. No. 37,160 Reg. No. 31,535	Pollinger, Steven J. Reich, John C. Reiland, Earl D. Schmidt, Cecil C. Schuman, Mark D. Schumann, Michael D. Schumann, Janice A. Smith, Jerome R. Sorensen, Andrew D. Stinebruner, Scott A. Strawbridge, Douglas A. Strodthoff, Kristine M. Sumner, John P. Sumners, John S. Tellekson, David K. Underhill, Albert L. Vandenburgh, J. Derek Vietzke, Lance L. Welter, Paul A. Williams, Douglas J. Wood, Gregory B.	Reg. No. 35,326 Reg. No. 37,703 Reg. No. 25,767 Reg. No. 20,566 Reg. No. 31,197 Reg. No. 33,280 Reg. No. 34,051 Reg. No. 33,606 Reg. No. 38,323 Reg. No. 28,376 Reg. No. 38,323 Reg. No. 28,376 Reg. No. 29,114 Reg. No. 32,314 Reg. No. 32,2179 Reg. No. 32,179 Reg. No. 32,0890 Reg. No. 27,054 Reg. No. 27,054 Reg. No. 28,133
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I hereby authorize them to act and rely on instructions from and communicate directly with the person/assignee/attorney/ firm/organization/who/which first sends/sent this case to them and by whom/which I hereby declare that I have consented after full disclosure to be represented unless/until I instruct Merchant, Gould to the contrary.

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I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

2	Full Name Of Inventor	Family Name Budd	First Given Name Jeffrey	Second Given Name Robert
0	Residence & Citizenship	City St. Paul	State or Foreign Country Minnesota	Country of Citizenship U.S.A.
	Post Office Address	Post Office Address 2261 Gordon Avenue	City St. Paul	State & Zip Code/Country Minnesota/55108/U.S.A.
.2	Full Name Of Inventor	Family Name Beatty	First Given Name Graydon	Second Given Name Ernest
0	Residence & Citizenship	City St. Paul	State or Foreign Country Minnesota	Country of Citizenship U.S.A.
2	Post Office Address	Post Office Address 1170 Cushing Circle, #319	City St. Paul	State & Zip Code/Country Minnesota/55108/U.S.A.
2	Full Name Of inventor	Family Name Hauck	First Given Name	Second Given Name
0	Residence & Citizenship	City Shoreview	State or Foreign Country Minnesota	Anderson Country of Citizenship
3	Post Office Address	Post Office Address 5900 Flodgson Road	City Shoreview	U.S.A. State & Zip Code/Country Minnesota/55126/U.S.A.

Signature of Inventor 201	Signature of Inventor 202 Haydon Enort Brutt	Signature of Inventor 203
Date April 12, 1995	Date april 12, 1995	Fate Cyril 12/1995

For Additional Inventors:

_ Indicate here and attach sheet with same information, including date and signature.

Commissioner of reservoir and the servoir of the se

EE 118354094 US 1/9/98 Robert Bech

§ 1.56 Duty to disclose information material to patentability.

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 - (1) prior art cited in search reports of a foreign patent office in a counterpart application, and
- (2) the closest information over which individuals associated with the filing or prosecution of a patent application believe any pending claim patentably defines, to make sure that any material information contained therein is disclosed to the Office.
- (b) Under this section, information is material to patentability when it is not cumulative to information already of record or being made of record in the application, and
- (1) It establishes, by itself or in combination with other information, a prima facie case of unpatentability of a claim; or
 - (2) It refutes, or is inconsistent with, a position the applicant takes in:
 - (i) Opposing an argument of unpatentability relied on by the Office, or
 - (ii) Asserting an argument of patentability.

A prima facie case of unpatentability is established when the information compels a conclusion that a claim is unpatentable under the preponderance of evidence, burden-of-proof standard, giving each term in the claim its broadest reasonable construction consistent with the specification, and before any consideration is given to evidence which may be submitted in an attempt to establish a contrary conclusion of patentability.

- (c) Individuals associated with the filing or prosecution of a patent application within the meaning of this section are:
- (1) Each inventor named in the application:
- (2) Each attorney or agent who prepares or prosecutes the application; and
- (3) Every other person who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application.
- (d) Individuals other than the attorney, agent or inventor may comply with this section by disclosing information to the attorney, agent, or inventor.



SMALL BUSINESS



/ERIFIED STATEMENT (DECLARATION) CLAIMING SMALL ENTITY STATUS (37 C.F.R. 1.9(f) AND 1.27(c)) - SMALL BUSINESS CONCERN

I hereby declare that I am

- a) () the owner of the small business concern identified below:
- b) (X) an official of the small business concern empowered to act on behalf of the concern identified below:

NAME OF	CONCERN:	Endocardial Solutions, Inc.
ADDRESS	OF CONCER	J: 1250 English Time.
	or concur	V: 1350 Energy Lane, Suite 110
		St. Paul, Minnesota 55108-5252

I hereby declare that the above identified small business concern qualifies as a small business concern as defined in 13 C.F.R. 121.3-18, and reproduced in 37 C.F.R. 1.9(d), for purposes of paying reduced fees under Section 41(a) and (b) of Title 35, United States Code, in that the number of employees of the concern, including those of its affiliates, does not exceed 500 persons. For purposes of this statement, (1) the number of employees of the business concern is the average over the previous fiscal year of the concern of the persons employed on a full-time, part-time or temporary basis during each of the pay periods of the fiscal year, and (2) concerns are affiliates of each other when either, directly or indirectly, one concern controls or has the power to control the other, or a third party or parties controls or has the power to control both.

I hereby declare that rights under contract or law have been conveyed to and remain with the small business concern identified above with regard to the invention, entitled ELECTROPHYSIOLOGY MAPPING SYSTEM

		WAFF	ING SYSTEM
by inven	tor(s) Jeffrey Robert Buc	ld, Graydon Ernest Beatty, and John Anders	son Hauck
describe a	d in a) (X) the specification f	iled herewith.	
not qualif concern ui	y as an independent inver nder 37 C.F.R. 1.9(d) or :	ator under 37 C.F.R. 1.9(c) or by any conce	sive, each individual, concern or organization having by any person, other than the inventor, who could are which would not qualify as a small business 9(e). *NOTE: Separate verified statements are invention averring to their status as small entities.
NAME			
AME	a) () INDIVIDUAL	b) () SMALL BUSINESS CONCERN	c) ()NONPROFIT ORGANIZATION
	a) () INDIVIDUAL	b) () SMALL BUSINESS CONCERN	c) () NONPROFIT ORGANIZATION

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 C.F.R. 1.28(b))

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereof, or any patent to which this verified statement is directed.

NAME Jeffrey Robert Budd
TITLE Senior Scientist, Endocardial Solutions, Inc.
ADDRESS 1350 Energy Land Solutions, Inc.
ADDRESS 1350 Energy Lane, Suite 110, St. Paul, Minnesota 55108-5253
DATE #71 /2 /695
The state of the s